

REMARKS

Applicants present claims 22 to 44 for examination. Claim 22 is independent. Favorable reconsideration and further examination are respectfully requested.

In the Office Action, claims 22 to 24, 26 to 29, 31, 32 and 41 to 44 were rejected over WO00/57515 (Kodim) in view of DE3626800 (Siemens AG); claim 25 was rejected over Kodim in view of Siemens AG and further in view of JP2-162744 (Hitachi LTD); claim 30 was rejected over Kodim in view of Siemens AG and further in view of US 5,122,921 (Koss); claims 33, 35 and 39 were rejected over Kodim in view of Siemens AG and further in view of US 6,272,327 (Kurchuck); claim 34 was rejected over Kodim in view of Siemens AG and further in view of JP02000134945 (Toshiba); claims 36 to 38 were rejected over Kodim in view of Siemens AG, Kurchuk, and US 5,276,422 (Ikeda); and claim 40 was rejected over Kodim in view of Siemens AG and further in view of US 6,072,993 (Triksa).

For at least the reasons set forth below, and those explained previously, Applicants respectfully traverse the rejection of independent claim 22. In this regard, claim 22 is directed to circuitry comprising a terminal for use with a high-frequency signal, at least two signal lines, a switching unit for connecting the terminal to a signal line, and a primary protection device for protecting against electrostatic discharges. The primary protection device is between the terminal and the switching unit, and the primary protection device comprises a first element that diverts voltages having a pulse height greater than 200V to a reference potential.

The applied art is not understood to disclose or to suggest the foregoing features of claim 22, particularly with respect to its primary protection device. As previously noted, page 3 of the

Office Action admits that Kodim does not teach a primary protection device that diverts a voltage greater than 200V to a reference potential. The Siemens AG reference was therefore cited for its alleged disclosure of this feature. In particular, it was said on pages 3 and 4 of the Office Action that the Siemens AG reference shows a primary protection device that “diverts voltages having a pulse height greater than 300V”, and that it would have been obvious to substitute the protection device of the Siemens AG reference for the protection device described in Kodim, and thereby render obvious the invention of claim 22. Applicants disagree.

Applicants argued, in their previous response, that it would not have been obvious to combine Kodim and the Siemens AG reference in the manner set forth in the Office Action. In the “Response to Arguments” section, the current Office Action states:

Kodim further teaches that the only limitation of the protection device is that it must pass frequencies higher than the lowest cutoff frequency of both duplex frequencies.

In support of this contention, the Office Action cites page 7, lines 3 and 4. That portion of Kodim is set forth below:

The cut off frequency of that high-pass-filter is lower than the lowest frequency from both Diplexer branches.

Thus, Kodim's protective device (namely, high-pass filter 1) only passes frequencies that are higher than the lowest cutoff frequency from the diplexer branches. However, Kodim's protective device also cuts-off frequencies that are lower than the lowest frequency of the diplexer. Whether Kodim's device passes a signal is dependent upon a frequency of that signal.

As clearly set forth in the Siemens AG reference, and as admitted on page 3, lines 2 to 4,
of the Office Action

The [Siemens AG] protection device comprises a primary protection device (2) comprising a first element (6) that diverts voltages having a pulse height greater than 300 V.

Accordingly, the Siemens AG reference is dealing with voltage pulse height, i.e., magnitude, not with frequency. That is, the Siemens AG reference passes pulses irrespective of frequency so long as their height is lower than 300V, and cuts-off pulses irrespective of frequency so long as their height is greater than 300V. If one were to substitute the Siemens AG protective device for the Kodim filter, as suggested in the Office Action, the Kodim diplexer would not operate as intended, since the Siemens AG protective device would pass all frequencies.

The Office Action states that

Kodim teaches that the only limitation of the protection device is that it must pass frequencies higher than the lowest cutoff frequency of both diplexer filter branches.

What is implicit in Kodim however, and inherent in the construction of a high-pass filter, is that the high-pass filter cuts-off frequencies that are lower than the lowest cutoff frequency, as explained above (if a high-pass filter passed all frequencies, then what would the high-pass filter be filtering?). Therefore, the statement that follows in the Office Action is not correct (i.e., “Thus, the protection circuit of Siemens AG would provide adequate over-voltage protection to the diplexer of Kodim”). That is, because the Siemens AG protective device passes all

frequencies, it would not provide adequate protection as required by Kodim (since Kodim's protection is frequency-dependent, as clearly explained on page 7 of Kodim).

Finally, Applicants note that reasoning for combining Kodim and the Siemens AG reference is explained on page 3 of the Office Action as

for the purpose of providing an improved over-voltage protection which contains a coarse and fine protection element in order to claim the input voltage at a more accurate value.

According to pages 13 and 14 of the Office Action, the motivation to combine the references comes not from the references themselves, but from the knowledge generally available in the art. In accordance with MPEP §2144.03B, Applicants respectfully request for the Examiner to provide further explanation on this point and, if available, to provide evidence as to why one of skill in the art would know to substitute a frequency-dependent filter for one that is clearly not frequency-dependent, and why such combination would then work.

Applicants also note that pages 13 and 14 of the Office Action states that

[b]ecause the protection device taught by Kodim is not relied upon to filter signals received at ports 2 & 3, it would have been obvious to one of ordinary skill in the art to replace the protection circuit of Kodim with a different over-voltage protection circuit as long as the new protection device passes all the frequencies that the Kodim protection device passes.

Applicants respectfully disagree with this statement for the reasons noted above. That is, the point is not only that the Kodim protection device passes signals, but that it also cuts-off some frequencies, which the Siemens AG device is not constructed to do. Accordingly, it would not have been obvious to one of ordinary skill in the art to replace the protection circuit of Kodim

with a different over-voltage protection circuit if the new protection device does not also cut-off frequencies that the Kodim device cuts-off.

For at least the foregoing reasons, claim 22, and the claims that depend therefrom, are believed to be patentable over the art.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney can be reached at the address shown below. All telephone calls should be directed to the undersigned at 617-521-7896.

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Please apply any fees or credits due in this case, which have not already been covered by check, to Deposit Account 06-1050 referencing Attorney Docket No. 14219-079US1.

Respectfully submitted,

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